



Docket No.: 4039-0135P
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Jack MAEGLI, et al.

Application No.: 10/649,825

Confirmation No.: 6651

Filed: August 28, 2003

Art Unit: 1761

For: SHELF STABLE MELTABLE PARTICULATE
FOOD PRODUCT

Examiner: K. J. MAHAFKEY

BRIEF ON APPEAL

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from the April 18, 2006 Final Rejection of all of the claims pending in the above-identified application.

(i.) Real party in interest.

The real party in interest in this appeal is the Assignee, KERRY INC.

(ii.) Related appeals and interferences.

There are no related appeals or interferences.

(iii.) Status of claims.

Claims 1, 4, and 6-11 stand rejected. Claims 2, 3, 5, and 12-16 have been cancelled.

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(iv.) Status of Amendments.

In the Advisory Action that was mailed on July 27, 2006, the Examiner kindly agreed to enter the Amendment after Final Rejection which had been filed on July 11, 2006.

(v.) Summary of claimed subject matter.

The present invention provides a low-water-activity shelf-stable particulate edible food-grade plasticized composition that has a savory inclusion and that is formulated to be melted onto snack foods and the like. The composition comprises: a protein such as sodium caseinate that forms a thermally reversible meltable gel; two different types of plasticizer components formulated to provide a fluid yet anhydrous medium which, in combination with water, allows the protein to solubilize, while enabling achievement of a cheese-like, tomatoey, or other desired flavor in the plasticized composition; a level of an oil such as partially hydrogenated soybean oil sufficient to provide proper texture, mouthfeel, and melt characteristics to the plasticized composition; and a savory characterizing flavor such as cheese or tomato or the like. Specification, paragraph [0011].

Applicants claim a savory, shelf-stable, particulate, meltable, food-grade plasticized composition having a water activity A_w of less than 0.50. Specification, paragraph [0013]. These compositions are oil-in-water emulsions. Compositions that contain too much oil will invert to water-in-oil emulsions, and accordingly are excluded from the present claims. Compositions that contain too little oil are dry and leathery, and are likewise excluded from the present claims. Specification, paragraph [0023].

More specifically, the claimed compositions include 10-30 weight-% of a protein that forms a thermally reversible meltable gel. Specification, paragraph [0022]. The compositions

include 15-50 weight-% of a plasticizer system, which serves to solubilize the protein. In accordance with the present invention, the plasticizer system is made up of 10-40 weight-% of a polyol plasticizer and 3-15 weight-% of a non-polyol plasticizer. Specification, paragraphs [0019] and [0020]. The compositions include 10-40 weight-% of an edible oil to provide proper texture, mouthfeel, and melt characteristics to the plasticized composition. Specification, paragraph [0023]. The compositions include 5-25 weight-% moisture. Specification, paragraph [0021]. The compositions include 10-40 weight-% of a savory flavoring component. Specification, paragraphs [0025] and [0027].

(vi.) Grounds of rejection to be reviewed on appeal.

Two grounds of rejection are to be reviewed on appeal: the rejection of claims 1, 4, 6, and 8-11 under 35 USC § 103(a) as being unpatentable over US 5,935,634 (Gamay); and the rejection of claim 7 under 35 USC § 103(a) as being unpatentable over Gamay in view of US 4,232,050 (Rule).

(vii.) Argument.

Claims 1, 4-6, and 8-11 stand rejected under 35 USC § 103(a) as being unpatentable over Gamay. Claim 7 stands rejected under 35 USC § 103(a) as being unpatentable over Gamay in view of Rule. The rejections of record are not believed to be sustainable.

The primary reference, Gamay, discloses shelf-stable cheese products which are said not to require refrigeration and not to support the proliferation of microorganisms. The compositions described in the Gamay patent contain natural cheese, lactose, and humectants. The humectants

may include lactates and polyols. At 40-70% natural cheese, these products carry too much water ($> 15\%$) to meet the low water activity standard ($A_w < 0.50$) of the present invention. Example 13 in the Gamay patent, for instance, discloses a water activity of 0.826. Specification, paragraph [0008].

In the Office Action of April 18, 2006, the Examiner referred to three portions of the Gamay disclosure in support of the rejection. 04/18/2006 Office Action, page 4, top.

Lines 53-58 in column 2 of Gamay are cited as allegedly teaching a method for modifying water activity levels. What Gamay actually teaches in lines 53-58 of column 2 is:

Limiting water activity for multiplication of *Staphylococcus aureus* were: with glycerol 0.884 to 0.890, with salt 0.861 to 0.870, and with sodium lactate 0.920 to 0.943.
Corresponding ranges for *Salmonella* spp. were: with glycerol 0.918 to 0.923, with salt 0.942 to 0.950, and with sodium lactate 0.943 to 0.951.

It is not clear why the Examiner believes that this disclosure suggests a water activity A_w of less than 0.50. In the Advisory Action of July 27, 2006, the Examiner indicates that this portion of the Gamay reference “teaches that common salts are able to lower water activity to desired levels”. It is not clear why the Examiner believes that this ability of common salts suggests a “composition having a water activity A_w of less than 0.50”, as expressly required by independent claim 1 herein.

Lines 12-20 in column 3 of Gamay are cited as allegedly motivating low water activity levels. What Gamay actually teaches (in relevant part) in lines 12-20 of column 3 is:

There is a need for cheese, cheese products and/or cheese compositions meeting various criteria, including the following: (1) low-water activity in order to satisfy food safety measures

It is not clear why the Examiner believes that this disclosure suggests “a water activity A_w of less than 0.50”, as expressly required by independent claim 1 herein. Actually, this disclosure supports the patentability of Applicants’ contribution, because Gamay acknowledges that low water activity is a goal, but Gamay fails to even recognize that the extremely low water activities which characterize the present invention could be a reasonable target for safety (or long shelf life) purposes. As Applicants had stated from the beginning in the background section of their specification, at 40-70% natural cheese, the Gamay products carry too much water to meet the low water activity standard of the present invention. More than the general (and vague) disclosure of “a need for cheese, cheese products and/or cheese compositions meeting various criteria, including the following: (1) low-water activity in order to satisfy food safety measures” is needed to block the patentability of compositions having the quantitative requirement of “a water activity A_w of less than 0.50”, as expressly required by independent claim 1 herein. Nothing in the prior art of record shows or suggests that (or how) this specific, extremely low level of water activity could be achieved in the context of the present invention.

Line 49 in column 4 of Gamay was cited by the Examiner as allegedly “naturally lead[ing] one of ordinary skill in the art to encompass an amount of below 0.50”. What Gamay actually teaches in line 49 of column 4 is:

... a water activity less than 0.86.

It is not clear why the Examiner believes that this suggests a water activity A_w of less than 0.50, as required by Applicants’ claim 1 – much less, a water activity less than or equal to about 0.43, as required by Applicants’ claim 4.

In addition to differentiating over the prior art by virtue of the unprecedentedly low quantitative water activity limitation recited in the claims, independent claim 1 herein also expressly requires 10-40 weight-% of a savory flavoring component and 5-25 weight-% moisture.

In the 07/27/2006 Advisory Action, the Examiner points to Gamay Example 6 and states that it contains “about 10% flavoring”. Applicants disagree. 7.64% is not “about” 10% -- it is “about” 8%. Even if it were “about 10%”, it would not meet Applicants’ claims, which require a minimum of 10 weight-% flavoring component. Nothing in the prior art cited motivates increasing the 7.64 weight-% flavoring component of Example 6 of Gamay to provide a flavoring component in a relative amount 131% greater. The qualitative motivation to which the Examiner refers, “suit one’s taste”, does not fairly suggest a quantitative change to a 131% greater flavoring weight-% value. (Incidentally, it is noted that Gamay Example 6 provides a product that contains about 40% moisture.)

In the 07/27/2006 Advisory Action, the Examiner notes that Gamay teaches addition of about 12% water. This is true, and if one continues reading the Example, one notes that the resulting product contains 40% moisture. In contrast, the compositions of present claim 1 contain “5-25 weight-% moisture”. As Applicants teach with respect to their invention:

Because the Flavor Characterizing Ingredient may contain moisture, added water will have to be adjusted accordingly. In the case of a high moisture Flavor Characterizing Ingredient, such as tomato paste or full moisture cheese, additional water may not be necessary in the manufacture of such embodiments of this invention.

Specification, paragraph [0021]. Nothing in the prior art cited by the Examiner motivates the provision of a savory, shelf-stable, particulate, meltable, food-grade plasticized composition,

having a water activity A_w of less than 0.50, comprising an oil-in-water emulsion, but containing the quantitative relative amount of only “5-25 weight-% moisture”.

The compositions of the present invention are expressly required to be “oil-in-water emulsions”. As pointed out in paragraph [0023] of the specification, compositions that contain too much oil will invert to water-in-oil emulsions, and accordingly are excluded from the present claims. Compositions that contain too little oil are dry and leathery, and are likewise excluded from the present claims. The Examiner has failed to address this feature of the present invention in the statement of the rejections.

SUMMARY AND CONCLUSION. The Gamay reference does suggest not various quantitative aspects of the presently claimed invention, including: (A.) a water activity A_w of less than 0.50 (less than or equal to about 0.43 in the case of claim 4); (B.) 10-40 weight-% of a savory flavoring component; and (C.) 5-25 weight-% moisture. Moreover, the Examiner has failed to address the “oil-in-water emulsion” feature of the present invention. Manifestly, the Examiner has failed to state a sustainable rejection based upon the Gamay reference.

CONTACT. If there are any questions concerning this application, please contact Richard Gallagher, Registration No. 28,781, at (703) 205-8008.

In view of the above arguments, Applicants believe that the pending application is in condition for allowance.


Application No. 10/649,825

Docket No.: 4039-0135P

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Respectfully submitted,

By

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(viii.) Claims appendix.

1. A savory, shelf-stable, particulate, meltable, food-grade plasticized composition, said composition having a water activity A_w of less than 0.50 and comprising an oil-in-water emulsion of:

10-30 weight-% of a protein that forms a thermally reversible meltable gel;

15-50 weight-% of plasticizer components to solubilize the protein, comprising 10-40 weight-% of a polyol plasticizer and 3-15 weight-% of a non-polyol plasticizer;

10-40 weight-% of an edible oil to provide proper texture, mouthfeel, and melt characteristics to the plasticized composition;

5-25 weight-% moisture; and

10-40 weight-% of a savory flavoring component.

4. The savory, shelf stable composition of claim 1, wherein the water activity is less than or equal to about 0.43.

6. The savory, shelf-stable composition of claim 1, wherein the protein is casein, the polyol plasticizer is glycerin, the non-polyol plasticizer is sodium lactate, the oil component is partially hydrogenated soybean oil, and the flavoring component is a cheese flavor.

7. The savory, shelf-stable composition of claim 6, comprising about 18 weight-% casein, about 21 weight-% glycerin, about 7 weight-% sodium lactate, about 21 weight-%

partially hydrogenated soybean oil, and about 24 weight-% cheese component.

8. The savory, shelf-stable composition of claim 1, wherein the protein is casein, the polyol plasticizer is glycerin, the non-polyol plasticizer is sodium lactate, the oil component is stabilized animal fat, and the flavoring component is a meat flavor.

9. The savory, shelf-stable composition of claim 8, comprising about 18 weight-% casein, about 20 weight-% glycerin, about 7 weight-% sodium lactate, about 18 weight-% stabilized animal fat, and about 25 weight-% meat extract and seasoning component.

10. The savory, shelf-stable composition of claim 1, wherein the protein is casein, the polyol plasticizer is glycerin, the non-polyol plasticizer is comprised of monosaccharides originating from the vegetable component, the oil component is partially hydrogenated vegetable oil, and the flavoring component is a vegetable flavor.

11. The savory, shelf-stable composition of claim 10, comprising about 20 weight-% casein, about 17 weight-% glycerin, about 35 weight-% flavor characterizing vegetable component, about 20 weight-% partially hydrogenated vegetable oil, and about 8 weight-% salt and seasoning component.

(ix.) Evidence appendix.

No documentary evidence aside from cited prior art is relied upon by Appellant in this appeal.

(x.) Related proceedings appendix.

There are no related proceedings.